



# **FACTORS AFFECTING CONSUMER'S BRAND PREFERENCE FOR REFRIGERATORS AND DRYCELLS**

## **DISSERTATION**

Submitted in partial fulfilment of the requirements  
for the award of the degree of

## **MASTER OF BUSINESS ADMINISTRATION**

BY

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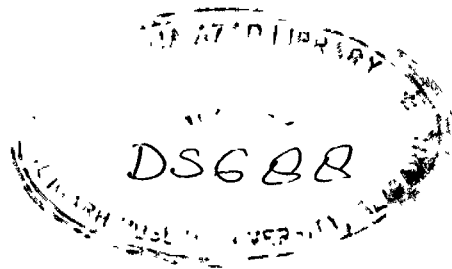
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supervision.

To the best of my knowledge and belief  
the work is based on the investigations  
made, data collected and analysed by him  
and it has not been submitted in any  
other University or Institution for any  
degree or diploma. I am fully satisfied  
with his work.

  
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*M. Shoqib Nisar*

( MOHD. SHOQIB NISAR )

## P R E F A C E

World is a place of changes, which occur at each & every moment, somewhere or the other. Man has progressed tremendously, has reached the moon, and is trying to scan beyond it. All this has led to the rapid development in human life. The advancement in society all over has open new and very promising vistas for many.

The increase in the standard of living, the growth in public income has led to, spurt in the demand for almost and conceivable product all over the world. In fact, there has been so much growth of in the income that goods which were once bought only due to their high value, slowly began to become a necessity. Consumer durables like refrigerators, T.V., Automobiles, electronic goods etc. has become a common item now.

Since India is not insulated from rest of the world, she also felt a perpetual and steady growth in middle and upper middle class. This triggered off a sudden spurt in demand for various durables. This motivated a large number of multinationals to enter into the Indian market and to compete with Indian companies. Not only this, many indigenous companies in the private sector joined the race. The result is stiff competition in every conceivable product line.

The situation is same for consumer non-durables. Stiff competition and recession in the market has made the buyer aware of various choices at his disposal. Various competitors in each product line are trying to wean away the buyers and potential buyers from other brands. Each company is trying to show that its product is best. They have launched a tirade of advertisements & other sales promotion, technique to brainwash the consumers.

Under these circumstances, it becomes very important to find out the factors which influences the buyers decision to buy a certain product. Hence it is imperative to find out such factors which influences the buying decision.

## I N T R O D U C T I O N

A marketing oriented firm first tries to find out the wants and needs of the consumers and potential consumers and then to make their products in such a way so that their needs are fulfilled. We may recall that a product is nothing but any tangible or intangible thing which can satisfy the wants and needs of the consumers.

As we in our country are moving more and more towards buyers markets the need for the proper understanding of the consumers has become imperative. And for this reason a manufacturer has to go in for research to find out the needs of the consumers.

### Brand & Brand Preference:

A brand is a name, term, symbol or design or their combination which is intended to indentify goods and services. The main aim of branding is to differentiate a product from that of the competitors. A brand name is that part of a brand which can be vocalized. In branding, the producers may use their own names such as Kelvinator, Gem etc.

There is great speculation as how the brand should be named so as to attract the consumers attention at the earliest possible. It should be kept in mind that the brand name has

great informational value to the buyer. It helps him to shop in stores among a large number of available brands. Another important aspect of branding is, establishment of brands quality levels and other attributes that will support the brand's targeted position in the market place. But manufacturers do not build highest quality products. Higher quality products will cost the consumers more and there is danger of erosion of the existing market share of the company.

The consumers preference for a particular brand, is one of the aims of that company. This is important because it is a measure of the influence that businesses have on the consumers. The brand preference should that the consumers have been convinced of the merits of the product and the satisfaction derived from it. Hence every manufacturer try to go in for product differentiation and thereby tries to convince the buyers that his product is better than the rest. Sometimes, the manufacturers also go in for 'Psychological' differentiation' that is creating imaginary differentiation in the minds of the buyers. But still, consumers brand preference has not been fully understood. Socio-economic factors like income, education, sex, age and occupation do not fully explain the consumers brand preference. Brand preference appears to be more dependent on the product and its image in the minds of the consumers.

### Major Processes involved in buying a brand:-

Every purchase decision arises out of some need. First of all, the consumer tries to clarify the nature of his needs and then decides that he or she needs some new form of sociability (Need class decision). He then considers various alternatives and decides that a refrigerator or a radio or a T.V. will satisfy his need (Product class decision). Then he may choose one of the available brands (Brand decision). More often than not, consumer may also undertake timing and payment-method decisions (for example instalment payments).

A person will buy one of the brands of various brands of the product in his evoked set. Evoked set is the set of alternatives that a buyer would actively consider at that stage of the decision process. If the consumer has not heard of any such brand which can satisfy his need, then he will not buy. It is thus imperative for the company to make sure that its brand appear in the evoked set of all the prospective consumers. Ideally, any company would like that its product should constitute the evoked set of the consumer. Since there are more than one brands in the evoked set of a customer, it is useful for it to find out how many different brands an average buyer considers before he actually buys. These brands in evoked set are the competitors of that company.

<u>Total set</u>	<u>Awareness set</u>	<u>Consideration set</u>	<u>Choice set</u>	<u>Decision</u>
Kelvinator	Kelvinator	Kelvinator	Kelvinator	Kelvinator
Allwyn	Allwyn	Allwyn	Allwyn	-
Gem	Gem	Gem	-	-
Leonard	Leonard	-	-	-
Godrej	<u>Unawareness set</u>			
Philips	Godrej			
	Philips			

The study undertaken by the present investigator is aimed at finding out the factors which affect the brand preference for refrigerators and dry cells. The investigator has undertaken such study because both classes of product are experiencing some sort of boom.

Refrigerators are assuming an ever increasing importance in the household sector. Its influx is visible every where, be it a large city or a remote village. A domestic refrigerator, according to Indian standard Institution is a cabinet which has a source of refrigeration and is used to store goodstuffs at around  $9^{\circ}\text{C}$  in cabinet and  $0^{\circ}\text{C}$  in freezer.

It is perhaps not fully appreciated that how much a refrigerator can help individual families to save precious food which will otherwise go waste. It has been found that on an average, a family can save as much as 600 kgs of food per year. Suffice to say, that refrigerators has become boon for every family.

The refrigerator can be divided into three parts.

- a. Refrigeration system.
- b. Insulated steel cabinet.
- c. Interior arrangement.

The refrigeration system consists of five components interconnected between themselves by tubes.

1. The refrigerant is any system substance that absorbs heat through expansion or evaporation. The various refrigerants in use are:

Freon, Ammonia and Methyl chloride.

2. The compressor :- It is the heart of the refrigerator and is located at the back of the cabinet. There are three types of compressors available.

- a. Open type
- b. Semi - hermetic type
- c. Welded hermetic type.



Moreover, there compressors come in two types of speed i.e. high speed and low speed compressors. Kelvinator and Allwyn have low speed compressors while the other brands have high speed compressors.

### III. Condenser:

It is a heat exchanger in which heat transfer takes place. Here the refrigerant vapours are condensed.

### IV. Evaporator or the frozen food chest:-

This is at the top, inside the refrigerator and allows for freezing on all the four sides and contains the trays & space for freezing.

### V. Expansion device & thermostat control:

The expansion from higher pressure to the lower pressure is accompanied by expansion value. It is a throttling process during which the evaporation of the refrigerant also occurs, which is most desirable.

### Insulated Steel Cabinet:-

The cabinet is made from steel sheets and is insulated with slabs of glass wool-2-3 inches thick. There are provisions on the outside for mounty valves are used as controller of load which operate with thermostatic expansion device. The expansion valve is partly operated by the thermostatic fluid. As the temperature of the refrigerant goes beyond a certain limit, it

expands and the needle of the valve and blocks the passage, thus reducing the amount of refrigerant coming to the evaporator. If the temperature is less, the passage will open more & more and thus the load in evaporator will be met.

#### Interior Arrangement:

The interior arrangement consists of the following.

- (a) Inner liner: This is rest proof and is made of high impact polystyrene and has food shelves & other components.
- (b) Baffle tray.
- (c) Crisper tray.

#### Refrigeration Industry in India:

The airconditioning and refrigeration industry of which domestic refrigerator is a levitary product is of a relatively recent origin in India. Even after indepdence, import of domestic refrigerators continued. Possession of a refrigerator continued to be a status symbol. However, after the implementation of the First V Year Plan, this changed. The importance of refrigeration and Airconditioning industry for prescruation of perishable goods was further enhanced.

Prior to 1947, India had no manufacturing facilities of airconditioning and refrigeration units. This industry made its begining in 1958 due to the great pressure on the foreign exchange reserves. Most of the earlier facilities were assembly

or sub-assembly units of imported kits. It was not until 1968 that the first indigenous compressor for the refrigerator was produced. At that time, India was the first developing country to do so and now it is the only developing country, self reliant in the field of airconditioning and refrigeration. In fact, India is now in position to export its technical expertise to other developing and under-developed countries.

At present, the annual production in India is about 1,75,000 units.

#### Refrigerator Manufacturers:

At present there are five manufacturers of refrigerators in India. They are:

1. Kelvinator of India Ltd. Faridabad.
2. The Hyderabad Allwyn Metal Works Ltd. Hyderabad.
3. Godrej & Boyce Manufacturing Co. Pvt. Ltd. Bombay.
4. Lloyd Sales Corporation, New Delhi.
5. Pieco India Ltd., Calcutta.

Voltas Ltd., Bombay is again entering into the refrigerators market after they ceased their production in 1978.

The market for drycells is ever expanding and this has led to the entry of large no of manufacturers in the market. Some of them are Union Carbide, Geep, Philips, Toshiba Anand etc.

It should be noted that the dry cells were first introduced in India by the British. At that time, whatever, the demand was, it was met by the british traders. In 1905, Union Carbide India Ltd. started the production of dry cells in India. Thus they were the pioneers in dry cell industry. At that time, there sales turnover was only Rs.500, which rose steadily to Rs.130 crores at present, making them the market leaders in dry cell industry.

The Union Carbide of India is a multinational concern, having better distribution system, better sales promotion etc. It has got a large no of offices are over India and has 3 manufacturing plants at Calcutta, Madras & Hyderabad. It has got a R&D centre at Bhopal.

The second is to enter into this market was Estrella Batteries Ltd. in 1941. It's sales in 1976-77 were of Rs.6 crores, though it suffered a loss of Rs.90 lakhs. It has hence ceased production.

Geep Flash Light Co. entered into the market of dry cells in 1968. Their entry led to the easing in the availability of dry cells in the market.

The advent of seventies saw a sudden rise in the number of dry cells manufacturers. This was due to the expansion in the market due to increased selling of transistors and torches. At present, there are nine manufacturers of dry cell in India viz. T.A., UCI, Geep, Punjab Anand, Nippo, Novino, J.K., Philips etc.

Dry Cells Market in India:

There is a buyer's market for dry cells in India and there is vast potential for all the consumer products. The annual demand for dry cell in India is around 1500 million. But the combined annual prise of all the many is about 1000 million, which leaves a gap of around 500 million.

Eveready is the market leader in dry cell industry followed by Geep and Toshiba Anand.

The market share of each manufacturer is:-

Eveready	45.0%
Geep	12.5%
Toshiba Anand	11.0%
Nippo	10.0%
Novino	9.2%
Estrella	5.3%
J.K.	3.7%
Philips	3.0%
Others	0.3%
	<hr/>
	100.0%

The total capacity of dry cell industry is around 1500 million pieces.

	Installed capacity
Union Carbide	519.5
Geep Flash Light Industries	240.0
Estrella Batteries	130.0
Toshiba Anand Batteries Ltd.	60.0
Punjab Anand Batteries Ltd.	42.0
Indo-National Ltd.	60.0
Lakhanpal National Ltd.	30.0
Pieco India Ltd.	120.0
M.P. Industries	72.0
Other	

Source : Industrial researcher.

*enhanced*  
 Due to ~~enhancing~~ competition in dry cell industry, Geep has been pushed to fifth place. But nearly all the other brands have increased their market share. The competition in North-eru and Southern India is particularly stiff. It should be noted that all the dry cell producing companies have increased their market share except for Geep and J.K. It would be better to say that both J.K. and Estrella are nearly defunct now. Perhaps the cause of such pathetri performance by these companies can be due to increase in raw material prices, labour problems, power cuts etc.

For the same reason, no manufacturer has been ask to increase the prices by more than 19% over the past four years. In fact there has been about 12% increase in the prices during the last 18 months. Also, the price difference between the various competeting brands is as low as 10-20 paise.

OBJECTIVES OF THE SURVEY:

- a) To find out the most important factor which affects the decision to buy a refrigerator.
- b) To find out the most reliable source of information which a buyer will use.
- c) Which is the most popular brand of refrigerator.
- d) To find out the duration of usage of fridges.
- e) To find out the impact of off-season discount on buying decision.
- f) To find out the influence of instalment payments.

## B

- a) Number of dry cells used by the respondents.
- b) To find out the frequency of usage for these brands.
- c) To find out the impact of price.
- d) To find out the most important factor which affects the buying decision.
- e) To find the extent of satisfaction for each brand.



### SURVEY DESIGN & METHODOLOGY

The present survey was conducted keeping in view the given objectives. The aim of the study was to elicit necessary information for the survey regarding the factors affecting the brand preference of the consumers for refrigerators and dry cells.

#### The Universe:

The universe for the present study constituted all those who has got a refrigerator, for the survey among the refrigerator owners. The list of such owners was obtained from the dealers of various brands in Aligarh. As for surveying the battery owners, it was assumed that since battery is used by nearly all the people, except those belonging to the lowest income group.

#### The Sample:

Since it was not possible to contact all the owners of fridges<sup>2</sup> & batteries, a sample was drawn from the population which was contacted for the present survey.

#### Sampling Technique:

In marketing studies, the conclusion can properly be inferred from the sample rather than from the census, which make the study very time consuming and cumbersome.

The method of selecting samples was a non-probability one, this is convenience sampling method was employed. There were various constraints which led to the usage of this method, like shortage of time and resources. But every effort was made to keep the sample well representative and without the personal bias of the investigator.

#### Survey Procedure & Methodology:

The survey was made with the help of a suitable questionnaire which has been designed to collect relevant information for this study. It was made clear at the outset of the questionnaire that the survey has only academic purpose. In order to get unbiased answers or to get the accurate answer, the questions were kept very brief, simple and understanding. A total number of 120 questionnaires were issued and the responses were received from about 100. No doubt the survey was conducted by the researcher himself, though some help was also sought from the friends, mainly class-mates. The investigator has taken steps to remove ambiguity if any arising out. Great care was taken in contacting the respondents. Hence they were all contacted at the time which was convenient for them. The respondents were then briefed about the aim of the present study and care was taken to remove their apprehensions if any. The investigator explained them what is required from them in order to get accurate answers.

Care was taken by the investigator and his friends to distribute the questionnaires as randomly as possible and they were asked to contact the respondent through some mutual friend. This was done to ensure frank and fair responses and to minimize the bias.

#### Accuracy & Size of Sample:

The accuracy of the study is of prime importance, be without being accurate, the study will be of very little academic value. It is known that the accuracy of the investigation depends on the size of the sample. Greater the sample size, greater the accuracy. Size of the sample depends on the size of the universe. If the universe is subject to much variations, the sample size must take all these into consideration.

Cent percent accuracy is impossible to achieve, more so when there are several constraints in operation. But it would be right to say that accuracy depends upon the sincerity of the informants to a large extent.

It is very difficult to get the information from the respondents because of the hesitation shown by them in responding to the questions. Their initial reluctance was quite valid since the questionnaire was put to them by a stranger. But their reluctance was soon removed, once they were convinced about the real objectives of the study.

### Limitation of the Study:

- (1) The sample taken is not large enough to get very accurate result. This was due to paucity of both time and money. However, adequate measure were taken to make the sample quite representative.
- (2) There may be some bias of the respondents but it is very difficult to elicit 100% accurate information.

### Research Tool:

The information collection tool used here is the questionnaire, which is a formalized set of questions for eliciting information. It's main function is measurement and it represents the most common form of information collection & measurement tool in Marketing Research. It can be used to measure (a) behaviour, (b) <sup>d</sup>demographic characteristics, (c) level of knowledge & (d) attitudes and opinions.

Every care was taken to include only those questions which were relevant for the study. Perhaps the most important thing to be considered is the ability of the questions to elicit the necessary information. Hence adequate steps were taken to include the right kind of questions. At the same time, it was made sure that the questionnaire does not become lengthy, since the respondents generally, loathe to answer lengthy questionnaire.

Similarly biased and loaded questions were avoided since they suggest an automatic feeling of approval or disapproval. All this leads to measurement error. Hence to avoid such measurement error, it was necessary to use more neutral phrasing questions.

The response format is also very important. Since there is no single foolproof response format, a fruitful blend of all these formats was made. The questions used in the survey fall into three categories.

1. Open-ended questions.
2. Multiple choice questions.
3. Dichotomous questions.

The advantages of open ended questions are many. The respondents is not influenced by a pre-stated set of response categories. Also, the open-ended questions elicit a wide variety of responses. The multiple choice questions are general easier for both the investigator & the respondent. They reduce interviewers and respondents bias to a large extent. Moreover analysis becomes easier.

#### Dichotomous Questions:

These are two responses questions, usually "yes-no" type. Perhaps the greatest advantage is that these are quick to answer. Also, it reduces respondents bias.

Every efforts was made to reduce the errors. The various errors and the measures taken to avoid them are;

- (a) Surrogate information error:- It arises if there is discrepancy in the information required and information sought by the researcher. Here the investigator has defined very clearly the information required.
- (b) Measurement error:- This error arises when there is difference between the information needed and the information provided by the measurement tool. This is perhaps the most common & serious error steps were taken to minimize this error. It was ensured that the questions produce the relevant information and off course, the ability of the respondents to answer accurately.
- (c) Non-response error:- Arises due to failure of an investigator to contact all members or failure of the respondents to respond to all or some part of the measurement tool. Hence precaution was taken not to include embarrassing and personal questions.

#### Pre<sup>e</sup>testing of<sup>the</sup> Questionnaire:

A thorough pretest of the questionnaire is imperative in order to remove any lacuna in the questionnaire itself. The pretesting was done on some class-mates and friends, who formed the part of the population. The respondents were

asked to explain, why they answered each question that way. This helped to uncover the shortcoming in the questionnaire. Hence, those shortcoming were removed.

The questionnaire consists of various type of questions such as multiple choice, dienotomous, ranking etc. There are three questions in which ranking is used. In these questions, the respondents were asked to rank the factors according to their importance. They were required to rank them from 6 to 1, 6 to the most preferred factor, 5 to lesser preferred and 1 to least preferred. The ranks given against each factor were then added and a comparative rating scale of each factor was obtained. This gave the relative importance of each factor.

For the other questions percentages were calculated and accordingly analysed.

### ANALYSIS AND INTERPRETATION

The information obtained by the questionnaire concerning two of the most important consumer products that is refrigerators and dry cells, is analysed questionwise. The conclusions have been drawn on the basis of this analysis. Part I of the analysis deals with the refrigerator survey, and Part II deals with dry cells survey.

#### PART I

Q1. If you were to buy a refrigerator, or your advice is sought by some-one who wishes to buy one, which factors you will prefer more, please rank accordingly.

The respondents were asked to rank the factors given in the question in order of preference. The respondents gave a rank to each factor (from 6 to 1, 6 to very very important to 1 to least important).

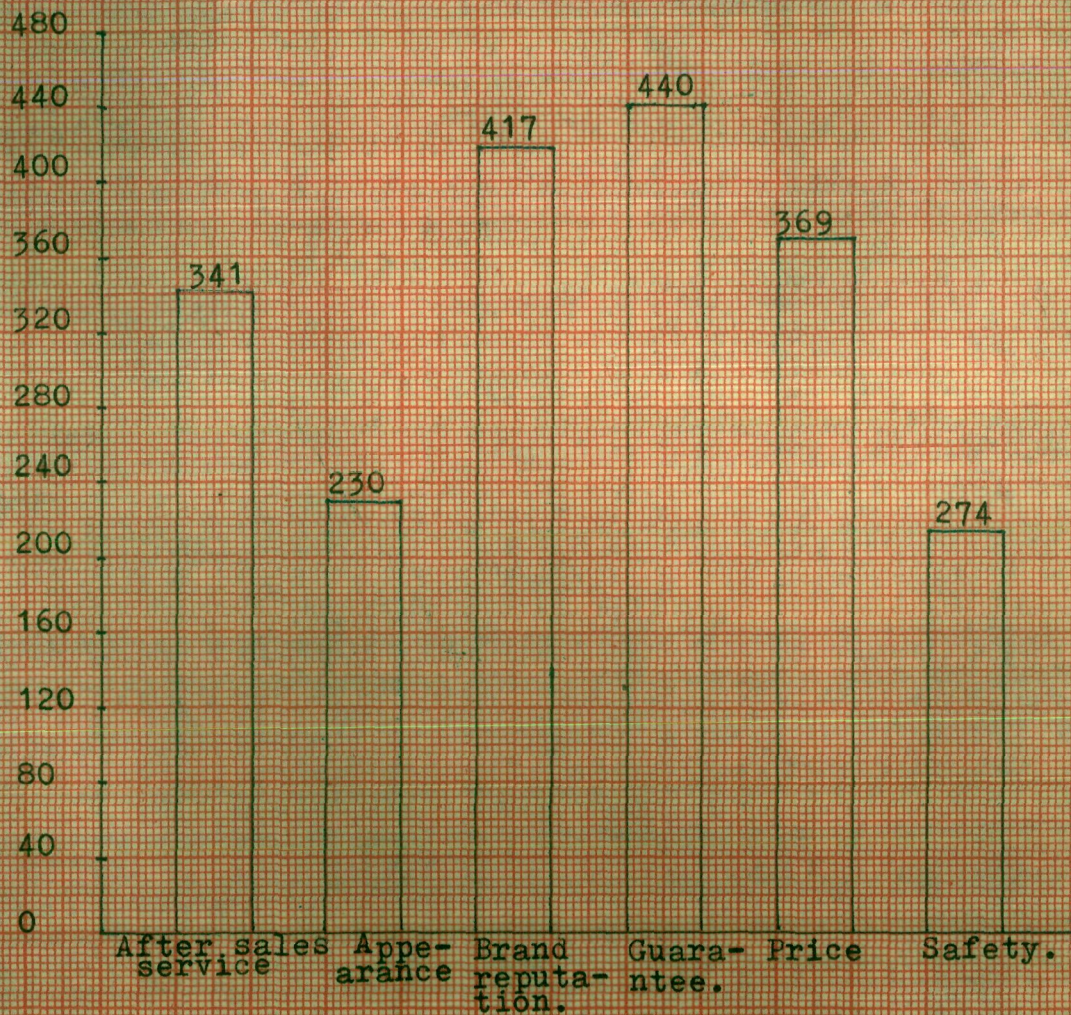
TABLE

	<u>Scores</u>
a. After sales service	341
b. Appearance	230
c. Brand reputation	417
d. Guarantee	440
e. Price	369
f. Safety	274



## SOURCES OF INFORMATION

## FACTORS AFFECTING BUYING DECISION FOR REFRIGERATORS





It is apparent from the table that the factor 'Guarantee' has got most scores. It has got a score of 440 and hence, it emerges out as the most important factor affecting a person's decision to buy a refrigerator. The second most important factor is Brand reputation. It has got the score of 417. Price is the third most important factor having the score of 369, which affects decision making. After sales service emerges out as fourth important factor. Its score is 341, 'safety' is fifth and 'appearance' is least important, the scores being 274 and 230 respectively.

Inference:

The above information leads to the conclusion that Guarantee and Brand reputations are the two most important factors for buying a refrigerator. They are followed by price, aftersales service, Safety and appearance in the order of importance.

Q2. On which sources of information would you rely more.

Please rank from 6 to 1.



The ranks obtained from the respondents are given below:

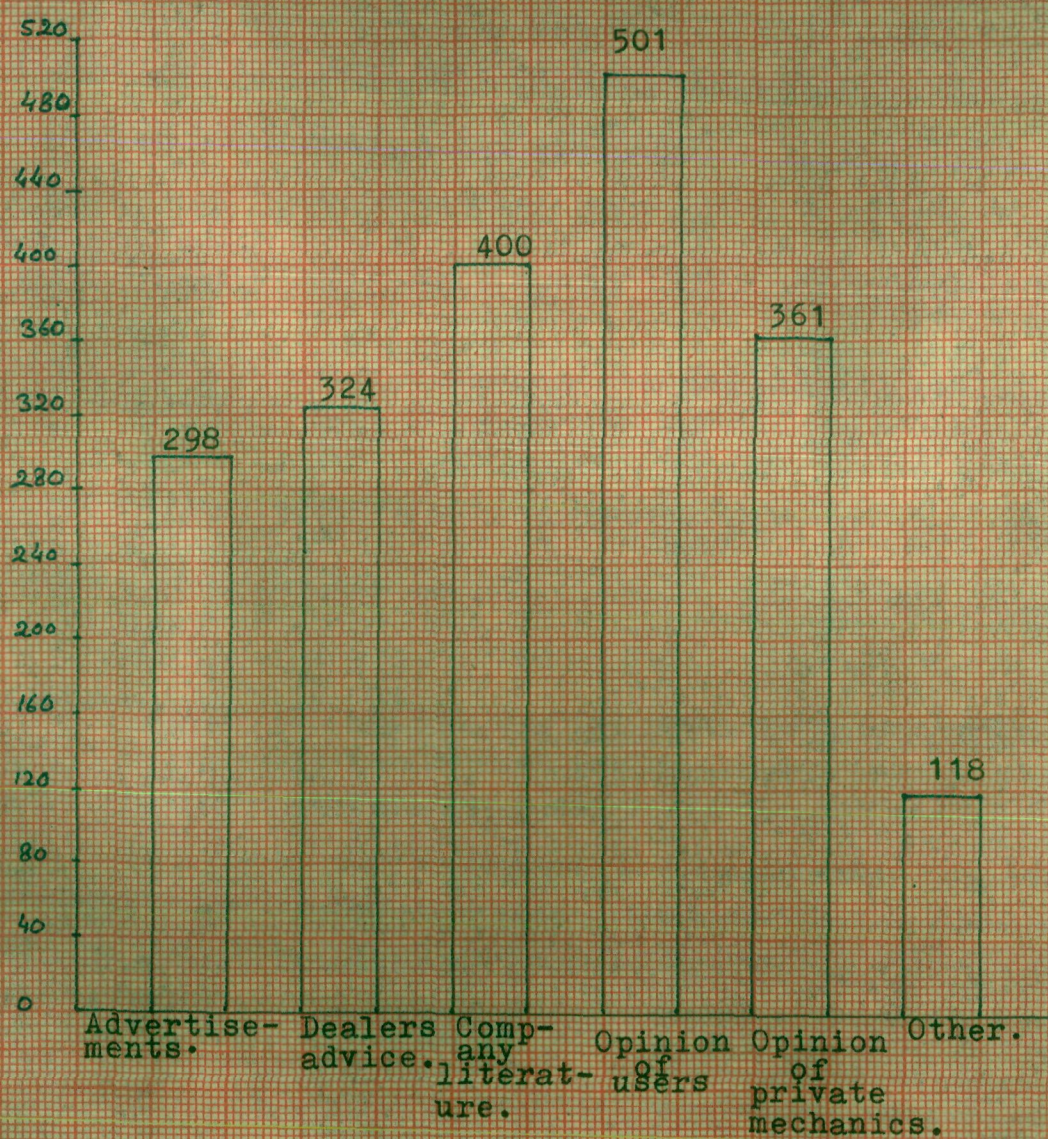
<u>TABLE</u>		<u>Scores</u>
a.	Advertisements	298
b.	Dealers advice	324
c.	Company literatures	400
d.	Opinion of users	501
e.	Opinion of private mechanics	361
f.	Any other:	
	Own judgement	118

As seen from the table, the most important and reliable source of information emerges out to be 'opinion of users'. It has got the score of 501. The second most reliable source of information is 'company's' literature' having the score of 400. These two are perhaps the most reliable sources of information.

Next comes 'opinion of private mechanics' its score being 361. Dealers advice is fourth in reliability and advertisements are least reliable the scores being 324 and 298 respectively.



## SOURCES OF INFORMATION





Inference:

From the analysis, 'opinion of the users' emerges out as the most reliable source of information, followed by company's literature. These two are the most reliable sources of information, followed by the opinion of private mechanics. It should be noted that the respondents think that dealers advice and advertisements are least reliable to buy an expensive product. It can be said that the advertisements have very low credibility among the users as well as those who wish to buy a refrigerator.

Q3. Which brand of refrigerator do you have ?

The analysis of this question revealed the following information. It was found that 22% of the respondents possess Allwyn, 19% possess Godrej, 11% possess Gem, 40% have Kelvinator and 8% of the respondents have Leonard.

TABLE

	<u>Percentage</u>
a. Allwyn	22%
b. Godrej	19%
c. Gem	11%
d. Kelvinator	40%
e. Leonard	8%

Further more, we can analyse the break up for each brand in case of each income group.

TABLE

Income	Allwyn	Godrej	Gem	Kelvinator	Leonard
Less than 1000	4	2	2	10	2
1000-1500	6	3	5	5	1
1500-2000	7	5	2	12	2
2000-2500	2	3	1	8	-
3000 & above	3	6	1	5	3
	22	19	11	40	8

As the above table shows, Kelvinator is the most popular brand for respondents who get less than Rs.1000 per month. It is followed by Allwyn. For the income group between Rs.1000-1500, Allwyn is most popular. Gem and Kelvinator are jointly placed second in this category. For income group of Rs.1500-2000, Kelvinator again emerges out as the most popular brand followed by Allwyn. Godrej is third while the other two are not very popular. Among the income group of Rs.2000-2500, Kelvinator is most popular brand while the others are not very popular. Godrej and Kelvinator are two very popular brands among the income group of Rs.3000 and above.

Inference:

Kelvinator is the most popular brand among the respondents. Allwyn and Godrej comes second and third respectively. The other two brands that is Gem and Leonard are not very popular. Kelvinator also emerges out as the most popular brand in almost every income group. Allwyn was second most popular.

Q4. For how long you have been using it?

Out of 100 respondents, 23% have reported using refrigerator between 1-2 years, 16% reported to be using it for 2-3 years, 19% reported to be using it for 3-4 years and 42% had used it for more than five years.

TABLE

	% of respondents
1 - 2 years	23
2 - 3 years	16
3 - 4 years	19
More than 5 years	42

A further break-up can be done on the basis of duration of usage of a particular brand.

TABLE

Brands	1-2 years	2-3 years	3-4 years	More than 5 yrs.
Allwyn	8	3	6	5
Godrej	3	6	5	5
Gem	5	1	1	4
Kelvinator	6	5	5	24
Leonard	1	1	2	4

It is apparent from the above table that, of the 23% respondents who said to be using a refrigerator between 1-2 years, 8% have Allwyn, 6% Kelvinator, 5% Gem and 3% Godrej. In case of those who used it for 2-3 years, 6% have Godrej, 5% Kelvinator and 3% Allwyn. The other two brands can be ignored. Between 3-4 years duration, Allwyn and Godrej is being used by 6% and 5% of the respondents respectively. Kelvinator is also used by 5% of the respondents out of the total of 19%. For those who have been using a refrigerator for more than 5 years, Kelvinator is the most widely used one (24% respondents own this brand). Allwyn and Godrej both are used by 5% of the respondents, while Gem and Leonard are used by 4% each.



Inference:

Majority of the respondents using a refrigerator fall in either 1-2 years or more than 5 years, category. Allwyn and Kelvinator are most popular brands in 1-2 years category, 2-3 years and 3-4 years category. While Kelvinator is most widely used brand in case of more than 5 years category.

Q5. Are you satisfied with the performance of the refrigerator with respect to cooling, electricity consumption and absence of noise.

The responses of the refrigerator owners are given in the following table.

TABLE

	Yes	No
Cooling	91	9
Electricity consumption	87	13
Absence of noise	75	25

As seen from the above table, 91 out of 100 respondents were satisfied with the cooling of their refrigerator and only 9 were unsatisfied. In case of electricity consumption, 87 refrigerator owners were satisfied while 13 were not satisfied. In case of absence of noise, 75 respondents were satisfied while 25 respondents reported unsatisfaction.

The brandwise satisfaction in performance variable is shown in the table below.

TABLE

Performance/ variables/ brands /	Kelvinator	Allwyn	Gem	Godrej	Leonard
Satisfied with cooling	40	20	10	15	6
Satisfied with Electricity Consumption	39	20	10	14	4
Satisfied with absence of noise	38	16	5	11	5

As seen from the table given above, out of 91 persons who reported satisfaction with cooling, 40 had Kelvinator, i.e. 100%, 20 had Allwyn (90%), 10 had Gem (90%), 15 had Godrej (78.9%) and 6 had Leonard (75%). For electricity consumption, 87 persons reported satisfaction, out of which 39 possess Kelvinator, (97%), 20 possess Allwyn (90%), 10 possess Gem, 14 possess Godrej and 4 possess Leonard (50%). In case of absence of noise, out of 75 respondents reporting satisfaction, 38 had Kelvinator (95%), 16 had Allwyn (72%), 5 had Gem (45%), 11 had Godrej (100%) and 5 had Gem.

Inference:

Most of the respondents were satisfied with cooling, electricity consumption and absence of noise. Brandwise, almost all the Kelvinator owners reported satisfaction with earlier mentioned variables. As for Allwyn, nearly all the users were satisfied with cooling and consumption, but quite a few were not satisfied with absence of noise. Gem and Leonard owners gave similar responses, while in case of Godrej the number of unsatisfied responses is greater.

Q6. What was the influence of off-season discount on your buying decision?

The opinion of the respondents (given below in table) was obtained. It was found that 45% of the respondents had very little impact of such discount when they bought their fridges. 37% had normal influence. But only 18% of the owners reported much influence about off-season discount in their decision to buy a fridge.

TABLE

Impact	% of respondents
Very much	18
Normal	37
Little	45

The income-wise break up of the above responses are given below.

TABLE

Income	Very much	Normal	Little
Below Rs. 1000	9	1	2
Rs. 1000-1500	7	8	9
Rs. 1500-2000	2	6	9
Rs. 2000-2500	-	11	10
Rs. 3000 and above	-	11	15

In the income group of below Rs. 1000 most of the respondents that is % were much influenced by off-season discount. In the income group of Rs. 1000-1500, % are influenced very much by this discount while the responses for other two are almost equal. For income group Rs. 1500-2000, ~~most~~ majority of the respondents % have very little or normal impact. For those earnings more than Rs. 2000 per month, the impact of off-season discount was very little.

Inference:

Most of the respondents had very little or normal impact of off-season discount when they bought their fridges. The impact was very much in case of respondents earnings below Rs. 1000 per month and those earning between Rs. 1000-1500. Respondents earning more than Rs. 2000 had very little impact of such discount.

Q7. What was the influence of instalment payments on your buying decision?

The responses are given below in the table.

TABLE

Impact	% of respondents
Very much	25
Normal	30
Little	45

It is obvious from the table that instalment payment had little impact for 45% of the respondents. The impact was very much in case of 25% of the respondents and normal for 30% respondents.

The income wise break up for the influence of a instalment payment is given below.

TABLE

<u>Income</u>	<u>Very much</u>	<u>Normal</u>	<u>Little</u>
Below Rs. 1000	10	1	1
Rs. 1000-1500	8	12	4
Rs. 1500-2000	7	5	5
Rs. 2000-3000	-	10	11
Above Rs. 3000	-	2	24
	<u>25</u>	<u>30</u>	<u>45</u>

As apparent from the above table almost all respondents getting less than Rs.1000 were very much influenced by instalment payments when they bought their fridge. Respondents between income group of Rs.1000-1500 also had high & normal impact of instalment. Respondents between the income group of Rs.1500-2000 were much influenced by instalment payments 41% and at the same time percentage of normal and little impact is very high (29% respectively). Respondents earning more than Rs.2000 had very little impact to great extent 52% and it is particularly very higher those earning more than Rs.3000 that is 92%.

Inference:

Majority of the respondents had normal and very little impact of the instalments. Nearly all respondents getting less than Rs.1500 were much influenced by instalment payment. Respondents earning more than Rs.1500 per month had normal or little impact to great extent and almost all the respondents earning more than Rs.3000 per month had very little influence of this factor.

PART II

In the second part of the questionnaire, the information was sought regarding the dry cells. The users were required to give their opinion about the performance of the dry cells, their personal experience etc. The information obtained from the respondents is analysed below.

Q1. Which of the following brands of batteries have you used?

This particular question deals with the brands which a respondent have used in their day to day life. Information obtained is given below.

TABLE

Brands	Number of respondents used it.
a. Eveready	94
b. Geep	74
c. Nippo	59
d. Novino	45
e. Philips	53
f. Toshiba Anand	34

As revealed by the table above, 94% of the respondents have used Eveready. 74% of the respondents have used Geep, 59% have usee Nippo, 45% have used Novino, 53% have used philips and 34% have used Toshiba Anand.

It may be observed that Eveready is the most often used brand, followed by Geep, Nippo, and Novino respectively. These brands are more popular than the other brands leading Philips.

#### Inference:

Eveready is the most popular brand followed by Geep, Nippo, and Philips. Other brands are lagging behind in popularity.

Q2. How frequently you have been using these brands?

In this question, the respondents were asked to rate how frequently, less frequently and rarely they have used these brands.

TABLE

<u>Brands</u>	<u>Frequently</u>	<u>Les frequently</u>	<u>Rarely</u>
Eveready	75	18	1
Geep	31	31	12
Nippo	26	21	12
Novino	18	16	11
Philips	26	12	15
Toshiba Anand	15	13	5



It is apparent from the table that 75% of the respondents have used Eveready frequently and 18% have used it less frequently and only 1% rarely. In case of Geep, 31% of the respondents have used it frequently and less frequently respectively. 12% used it rarely. In case of Nippo, 26% respondents used it frequently and 21% used it least frequently. For Novino, 18% respondents used it frequently, 16% less frequently and 11% rarely. For Philips, 26% used it frequently, 12% less frequently and 15% used it rarely. In case of Toshiba Anand, 15% and 13% of the respondents used it frequently and less frequently respectively and 5% used it rarely.

#### Inference:

From the analysis, it is clear that Eveready is the most frequently used brand of dry cell, followed by Geep, Nippo, and Philips. Philips is most rarely used dry cell followed by Nippo and Novino.

Q3. Does price have any impact on your brand choice?

For this question, following responses were obtained.

<u>TABLE</u>		% of respondents
Much impact	:	19
Normal impact	:	38
Little impact	:	43
		<hr/>
		100

It is clear from the table that 19% of the respondents had much impact of price on their brand choice. 38% had normal impact and 43% of the respondents reported very little impact.

The impact of price on buying decision can also be analysed with respect to various income groups.

TABLE

<u>Monthly Income</u>	<u>Much impact</u>	<u>Normal</u>	<u>Little</u>
Below Rs. 1000	10	2	-
Rs. 1000-1500	7	8	9
Rs. 1500-2000	2	10	5
Rs. 2000-3000	-	8	13
Above Rs. 3000	-	10	16
	<hr/> 19	<hr/> 38	<hr/> 43

As apparent from above, majority of respondents earning less than Rs. 1000 per month experienced much impact on their brand choice that is 10%. In income group of Rs. 1000-1500, 7% of the respondents experienced much impact, while nearly equal percentage opted for normal and little impact. In income group of Rs. 1500-2000, majority (15%) of the respondents experienced normal and little impact while only 2% had much impact. Majority of the persons earning, more than Rs. 2000 had very little impact of price on their decision to buy a particular brand of battery.

Inference:

Majority of the respondents had either normal or very little impact of price on their buying decision. It is also clear that majority of the respondents earning less than Rs.1000 had much impact of price on their buying decision. Those earning more than Rs.2000 had very little impact of price on their decision to buy a particular brand of battery.

Q4. While buying a battery, which of the following factors you will prefer more. Please rank from 6 to 1.

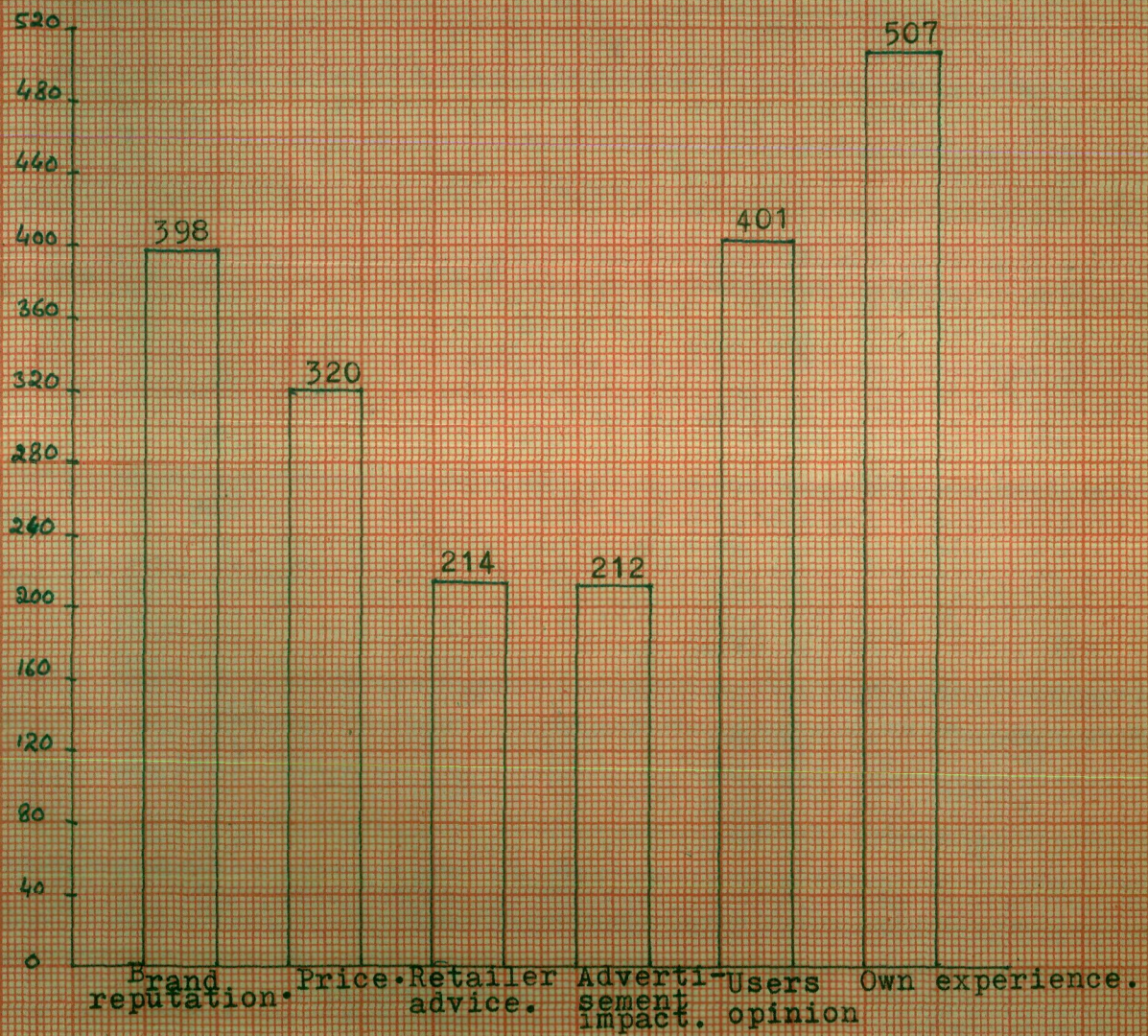
The respondents ranked the factors according to their own choice and the following responses were obtained.

TABLE

<u>Factors</u>	<u>Ranking scores</u>
Brand reputation	398
Price	320
Retailer's advice	214
Advertisement impact	212
Users opinion	401
Own experience	507



## FACTORS AFFECTING BUYING DESIONS





The most important factor emerging out was that of 'own experience' having the score of 507. Users opinion is the second most important factor with the score of 401. Brand reputation is third in importance, having the score of 398. It is followed by price with the score of 320 and it is not every important in case of batteries. The other two factors 'retailers advice and advertisement impact' have the scores of 214 and 212 respectively and are least important to the respondents.

#### Inference:

Own experience is the most important factor which affects the decision to buy dry cells, users opinion and brand reputation are also very important factors (after respondents own experience). Price is not an important factor. Retailer's advice and advertisements have very little impact on the respondents.

Q5. To what extent are you satisfied with the performance in terms of brightness and durability?

The responses of the users were classified into 3 categories that is satisfied, less satisfied and not satisfied.

TABLE

<u>Brands</u>	<u>Satisfied</u>	<u>Less satisfied</u>	<u>Not satisfied</u>
Eveready	76	16	2
Geep	50	20	4
Nippo	30	26	3
Novino	24	16	5
Philips	40	11	2
Toshiba Anand	17	8	8

The table reveals that out of 92 persons who used Eveready, 76 were satisfied with its performance, 16 were less satisfied and only 2 were not satisfied.

Out of 74 persons who used Geep, 50 were satisfied 20 less satisfied and 4 were not satisfied with its performance. Out of 59 persons using Nippo, 30 were satisfied, 26 were less satisfied and only 3 were not satisfied with the performance. Out of 45 persons using Novino, 24 were satisfied 16 were less satisfied and only 5 were not satisfied. In case

of philips, 40 were satisfied, 11 were less satisfied and only 2 were not satisfied with its performance. In case of Toshiba Anand 17 were satisfied with its performance, 8 were less satisfied and not satisfied respectively.

### Inference:

Eveready is one brand having the maximum number of satisfied users. Geep is second in performance, followed closely by Philips. Toshiba Anand had maximum not satisfied users. Thus performance wise Eveready ranks first, followed by Geep and Philips.

### Q7. What is your monthly income?

There were hundred respondents, out of which 12 respondents were in less than Rs.1000 category, 24 were earning between Rs.1000-1500, 17 were earning between Rs.1500-2000, 21 respondents were earning between Rs.2000-3000 and 26 were earning more than Rs.3000 per month.

TABLE

Income	Number of respondents
Less than Rs.1000	12
Rs.1000-1500	24
Rs.1500-2000	17
Rs.2000-3000	21
Rs.3000 and above	26
	<hr/>
	100
	<hr/>

## C O N C L U S I O N S

### For Refrigerators

The analysis of data has given rise to following conclusions:

1. Guarantee and brand reputation are the two most important factors influencing the buying decision of the consumers. Price is third.
2. Opinion of the users is the most reliable source of information followed by company's literature.
3. Kelvinator is the most popular brand, that is, it is the market leader. It is followed by Allwyn, Godrej, Gem and Leonard in that order.
4. Most of the refrigerator owners fall in 5 years and above category and Kelvinator is most popular.
5. Most of the Kelvinator owners reported satisfaction about the performance. The percentage was lesser in case of Allwyn.
6. Most of the respondents had very little impact of off-season discount. But respondents falling in income group of less than Rs. 1500 per month reported much impact.



7. Most of the respondents had very little impact of instalment payments. But it was appreciable in case of respondents earning less than Rs.1500 per month.

#### For Dry Cells

1. Eveready is the market leader in dry cells.
2. Eveready is the most frequently used dry cell, followed by Geep, Nippo and Philips.
3. Most of the consumers had very little impact of price when they buy a battery.
4. The most important factor affecting the buying decision is own experience' of the users. Opinion of other users is second and brand reputation comes third.
5. Eveready has maximum number of satisfied users, followed by Geep, Philips, and Nippo.

## S U M M A R Y

The present study aims at finding out the factors which are responsible for the consumer's preferences for products of durable and non-durable nature that is refrigerators and dry cells. The study on these kind of products was considered necessary not only because of their growth potential on account of their being items of increasingly common use, but because of stiff competition prevailing in the market. If some of the brands have larger market share, then naturally the question arises what possibly could be the reasons for it. An understanding of these factors would help in planning strategies for promoting the sales.

The factors being investigated were the most reliable source of information, most important factor responsible for brand preference, most popular brand and satisfaction in the performance for refrigerators and the number of brands used by the respondents, frequency of use, impact of price on buying, most important factor affecting the decision to buy a particular brand and the extent of satisfaction in performance for dry cells. For refrigerators the brands chosen were Kelvinator, Allwyn, Godrej, Gem and Leonard. For dry cells, the brands investigated were Eveready, Geep, Nippo, Novino and Toshiba Anand.

In order to elicit information regarding the aforesaid factors pertaining to buying preferences, a questionnaire having two parts, one for refrigerator and the other for dry cells was constructed conforming to the standard criteria of test construction. The questionnaire consisted of 7 items for first and 6 items for second part, having both the multiple choice and ranking type items.

The study was carried out on a sample of 100 educated, gainfully employed Hindus and Muslims, of both the sexes drawn on the basis of convenience sampling from the city of Aligarh. About 80% of the respondents belong to the upper and upper middle class.

Analysis of the data for refrigerators yielded information regarding the relative potency of factors pertaining to source of information, brand preference apart from the level of satisfaction, relating to each of the five brands used in the study. Opinion of the actual users emerged as the most extensively used source of information guiding the buying decision. There was company's literature, opinion of private mechanics, dealers advice etc. Guarantee and brand reputation were given much more weightage than price, after sales service, safety and appearances in brand preferences by the respondents. In the satisfaction of the brand used, those owning Kelvinator expressed maximally satisfied followed by those owning Allwyn, Godrej, Gem and Leonard. Monetary

incentive in the form of off season discount and instalment payments had very little effect on the respondents.

The trend of results relating to six brands of dry cells investigated indicated that Eveready, Geep, Novino, Nippo, Philips and Toshiba Anand differed in the extent and frequency of usage in the order given. Performance-wise, Eveready was ranked first, followed by Geep, Nippo, Novino, Philips and Toshiba Anand. Among the factors determining buying decision, one's own experience emerged at the top, followed by other users opinion, brand reputation, price, retailers advice and advertisement impact. Obviously, the findings hold good for the kind of population the sample of the study represented.

Strategies for sales promotion aimed at the upper and upper middle educated people should take into account the factors relating to the buying behaviour as suggested by the exploratory study.

Q U E S T I O N N A I R E

Dear respondent,

The present study is being conducted to collect the information for market survey on "consumer preferences in buying refrigerators and dry cells". It is a purely academic survey and the information provided by you will be used only for academic purpose. The validity of the survey will very much depend on the free and frank opinions expressed by you. Your valued co-operation is therefore solicited.

Yours faithfully,

(MOHD. SHQAIB NISAR)  
Deptt. of Business Admn.  
A.M.U., Aligarh

P A R T - I

Q1. If you were to buy a refrigerator or your advice is sought by some one who wishes to buy one, which factors will you prefer most. Please rank from 6 to 1.

- |                        |        |
|------------------------|--------|
| a) After sales service | (    ) |
| b) Appearance          | (    ) |
| c) Brand reputation    | (    ) |
| d) Guarantee           | (    ) |
| e) Price               | (    ) |
| f) Safety              | (    ) |

Q2. On which sources of information would you rely more?  
Please rank from 6 to 1.

- a) Advertisements ( )
- b) Dealers advice ( )
- c) Company literature ( )
- d) Opinion of users ( )
- e) Opinion of private mechanics ( )
- f) Other, please specify ( )

Q3. Which brand of refrigerator do you have?

- a) Allwyn ( )
- b) Dodrej ( )
- c) Gem ( )
- d) Kelvinator ( )
- e) Leonard ( )
- f) Other ( )

Q4. For how long you have been using it?

- a) 1 - 2 years ( )
- b) 2 - 3 years ( )
- c) 3 - 4 years ( )
- d) More than 5 years ( )

Q5. Are you satisfied with the following aspects of its performance?

Yes                  No

- a) Cooling
- b) Electricity consumption
- c) Absence of noise

Q6. What was the influence of the off-season discount on your buying decision?

- a) Very much                                  (    )
- b) Normal                                      (    )
- c) Little                                        (    )

Q7. What was the influence of instalment payments on your buying decision?

- a) Very much                                  (    )
- b) Normal                                      (    )
- c) Little                                        (    )

P A R T - II

Q1. Which of the following brands of batteries have you used?

- |             |        |
|-------------|--------|
| a. Eveready | (    ) |
| b. Geep     | (    ) |
| c. Nippo    | (    ) |
| d. Novino   | (    ) |
| e. Philips  | (    ) |
| f. Others   | (    ) |

Q2. How frequently you have been using these brands?

- |             | Frequently | Less<br>Frequently | Rarely |
|-------------|------------|--------------------|--------|
| a. Eveready | (    )     | (    )             | (    ) |
| b. Geep     | (    )     | (    )             | (    ) |
| c. Nippo    | (    )     | (    )             | (    ) |
| d. Novino   | (    )     | (    )             | (    ) |
| e. Philips  | (    )     | (    )             | (    ) |
| f. Others   | (    )     | (    )             | (    ) |

Q3. Does price have any impact on your brand choice?

- |                  |        |
|------------------|--------|
| a. Much impact   | (    ) |
| b. Normal impact | (    ) |
| c. Little impact | (    ) |



Q4. While buying a battery, which of the following factors you will prefer more. Please rank them from 6 to 1.

- |                         |       |
|-------------------------|-------|
| a. Brand reputation     | (   ) |
| b. Price                | (   ) |
| c. Retailers advice     | (   ) |
| d. Advertisement impact | (   ) |
| e. Users opinion        | (   ) |
| f. Own experience       | (   ) |

Q5. To what extent are you satisfied with the performance in terms of brightness and durability.

- |             | Satisfied | Less<br>satisfied | Not<br>satisfied |
|-------------|-----------|-------------------|------------------|
| a. Eveready | (   )     | (   )             | (   )            |
| b. Geep     | (   )     | (   )             | (   )            |
| c. Nippo    | (   )     | (   )             | (   )            |
| d. Novino   | (   )     | (   )             | (   )            |
| e. Philips  | (   )     | (   )             | (   )            |
| f. Others   | (   )     | (   )             | (   )            |

Q6. What is your monthly income ?

- |                       |       |
|-----------------------|-------|
| a. Below Rs. 1000     | (   ) |
| b. Rs. 1000-1500      | (   ) |
| c. Rs. 1500-2000      | (   ) |
| d. Rs. 2000-3000      | (   ) |
| e. Rs. 3000 and above | (   ) |

B I B L O G R A P H Y

1. Refrigeration and Airconditioning  
By Jorden and Prieter,
2. Modern refrigeration & Airconditioning:  
By Althonse and Turnquist.
3. Marketing Management  
By P. Kotler
4. Marketing  
By L.J.Rosenberg.
5. Fundamentals of Marketing  
By W.J. Stanton
6. Marketing Research  
By Tull and <sup>H</sup>Nowkins